

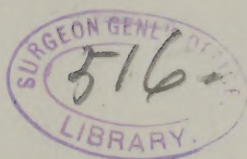
RANNEY (Geo. E.)

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THE TREATMENT OF
GALACTORRHOEA AND MASTITIS
BY PRESSURE.

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THE TREATMENT OF MASTITIS AND GALACTORRHŒA BY PRESSURE.

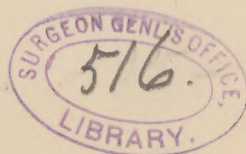
GEORGE E. RANNEY, M. D.,

Lansing.

Though calling attention twenty-two years ago, and on subsequent occasions, to the treatment of mastitis by pressure with a broad, many-tailed bandage, it has failed to attract the attention of the profession to the extent which, I believe, its merits demand, and the hope of benefiting womankind in particular has been and still is my incentive for continuing to discuss it, so that the medical world may hear it. The one who would devise some sure, safe, prompt and efficient way of dealing with extra-uterine pregnancy with safety to the mother, would be heralded as a benefactor of his race.

Still, the aggregate suffering from mastitis is undoubtedly many times greater than from the former terrible plight, and probably as many or more deaths resulting directly or indirectly therefrom as from the former; for there are, presumably, a thousand cases of mastitis to one of extra-uterine pregnancy.

This method of treating mastitis and galactorrhœa by pressure, I believe, needs only to be mentioned to recommend itself, and in doing so I shall not presume upon the intelligence of this audience to discuss the anatomy or physiology of the mammary glands, nor to any extent the pathology of mastitis, or galactorrhœa. The treatment I have invariably adopted during the past twenty-two years, and which has, in every instance I have tried it, been certain, sure, efficient and prompt in relieving this distressing, and oftentimes protracted, difficulty, is carried out by the simple means of compression, generally with a many-tailed binder or bandage, sometimes with the hand and sometimes with a rubber binder, the rubber being



particularly applicable in cases where only one or more lobes of one breast are involved ; for by attaching adhesive strips to two sides of the rubber, it can be drawn firmly across the swollen portion of the gland by attaching straps to the chest on either side of the inflamed parts, which straps need not encircle the trunk, as is necessary when both breasts are involved.

Pressure applied to the engorged glands, so loose of texture, while it is grateful to the patient, rapidly empties the distended blood-vessels, and while it thus overcomes the tendency to pathological conditions, inflammation and its results, it interferes with no normal function, for the pressure can be varied at will, and thereby the amount of blood flowing to the parts controlled. What little milk may be in the breasts at any one time, namely that in the lactiferous ducts, will be promptly pressed out through the nipple, as will be evidenced by moisture of the bandage about the nipple ; and when required, through an aperture in the bandage, the child may nurse to any extent desirable.

In choosing a bandage I select a strong piece of cotton cloth wide enough to reach from the axilla to below the swollen glands and long enough to reach around the chest and tie. I tear the ends of the bandage into strips or ends about one and one-half inches wide, leaving the part encircling the body its full width, and after enveloping the chest in the bandage tie the ends over the sternum, readjusting the bandage to produce the requisite pressure as the blood rapidly recedes from the glands.

The roller bandage has long been in use for supporting the breasts and its use has been advocated as a means of affording relief to the tumefied and painful mammæ, but I do not think that, until quite recently, it has been applied for the purpose and with efficiency to overcome completely or even in a marked degree mastitis and its results, and from the difficulties of retaining it in place (by safety pins, as has been recommended), its use I regard, at least in the hands of most practitioners, inefficient if not impracticable.

Besides the use of the bandage for mastitis, I use it for controlling the quantity of secretion, or when desirable, as in

case of still-birth, or weaning the child, or on account of the poor quality of the milk, or extreme feebleness of the mother which forbids her nursing the child, or for any other reasons I wish to suppress the secretion altogether.

Reference to a few cases may tend to show how efficient the use of the bandage has been in my hands.

Case I.—A woman about 28 years of age had severe inflammation of the breasts, as a result of metastasis of mumps. In this case I confess that, as in other instances, “necessity” may have been the “mother of invention,” for there were no pins at hand with which to apply a binder and no suitable cloth with which to make a roller bandage, so destitute was the patient of the ordinary conveniences of life. The application of the bandage resulted in promptly arresting the engorgement of the breasts and cure of the patient.

Case II.—So efficient was the treatment in the foregoing case I thought I would try it in the next case of mastitis, from whatever cause, I might be called upon to treat. I had not long to wait, for a patient of mine soon gave birth to a still-born child at full term. In two or three days “milk fever” came on and her breasts became enormously swollen and were very painful and tender to the touch. Application of the many-tailed bandage, promptly dissipated the engorgement and pain and also the increased temperature of the patient. The woman had a rapid convalescence, without having secreted a drop of milk during her puerperal state. A report by me of the preceding cases appeared in the *Detroit (Michigan) Review of Medicine and Pharmacy*, June, 1866.

Case III.—About five years since, a very able physician called on me to see his wife’s sister, who I had attended in her late confinement. He stated that for some three days and nights her temperature had been 104° F. most of the time, that he had given her freely of quinine, without in the least diminishing the fever, and that in view of the lowered vital energies and feebleness of the patient he did not believe she would recover if the high fever should continue 24 hours longer. I asked him if her breasts were engorged and inflamed. He said not sufficiently to account for her high

fever. On my arrival I found the patient's breasts full and tender, and the temperature, as he stated, 104° F. I at once adjusted the bandage, tightening it two or three times within a few minutes, affording her prompt relief and lessening within one hour the temperature 3° , which in a few hours became normal for a woman in a puerperal state, the patient from that time progressing to a satisfactory and perfect recovery. Had the increased temperature been the result of inflammation from septicæmia the fever could not have been so rapidly reduced by that treatment.

Case IV.—A few years ago a woman whom I had attended in confinement, called my attention to the fact that her breasts were very full and painful, and that, owing to suppuration following a previous confinement, the left nipple had entirely sloughed away, and that consequently the milk could not be drawn and she feared the most distressing results. I directed the nurse to apply pressure with her hand to the inflamed portion of the breast, which she did with the result of at once overcoming the trouble, and subsequent attacks were prevented by the same means.

If from awkwardness or inefficiency of the attendants the proper pressure of the inflamed breast by the hand is impracticable, and when the inflammation is confined to a limited portion of one breast, I apply pressure by means of the rubber cloth with adhesive straps attached as mentioned above.

Case V.—A few months since, a gentleman who lived in the country came to my office wanting me to visit his wife who some weeks previously had given birth to a child, and who was then suffering from inflammation of one or more lobes of one of the mammary glands. He informed me that following a previous confinement his wife had had a broken breast and he feared a like result in the present instance. I told him that it would not be necessary for me to visit his wife; that if he would place his hand upon the inflamed part of the breast, and make steady, firm, even and persistent pressure, that the inflammation and swelling would disappear. He did as directed with the result as predicted, and on the second day following the patient called on me to report her prompt relief and recovery and to thank me.

Case VI.—This was a case of galactorrhœa, which I reported to the British Medical Association, in 1886, as follows: This case is of considerable interest to me, and shows the efficiency of the bandage in the treatment of galactorrhœa, of which the following is a brief history of, to me, an unique case. A woman, aged 34, of rheumatic diathesis, stout and well formed, the mother of four children, the youngest being six years old. She had nursed her first three children from fourteen to eighteen months each, and the last one for about two years. At weaning of the last child, the secretion of milk ceased, and in about two months thereafter she had a menstrual flow which was more abundant than she had ever experienced before. Following this she had no return of the menses; but at the end of about a month her breasts became swollen and painful, and she had what might be termed "milk fever," for the secretion of milk in her breasts became abundant, sufficient to support a healthy child; and for two years following, her milk was drawn with a breast pump, two or more times a day, but in other respects the woman was in a normal, healthy state, barring anchylosis of knee joints from a rheumatic attack some years previous. The patient informed me that during the preceding two years she had been under treatment by different physicians for this abnormal condition, but without any relief, as far as she could judge. I applied the bandage, with the effect of immediately arresting the secretion of milk. In a few weeks following, her menstrual period was again established, and she has remained regular and normal in that respect, having no disease of the uterus or appendages, and was well in all other respects, with the exception of an illness from two urinary calculi, weighing, in the aggregate, two ounces, which I removed per vaginam, through the neck of the bladder, about two years and a half ago.

Dr. Gibbons, of England, in February, 1887, reported a case of galactorrhœa to the Obstetrical Society of London, a synopsis of which I quote from the *British Medical Journal*, February 12, 1887, p. 331:

"A lady, aged 23, who had ceased nursing for six weeks, complained of constant running of milk from her left breast.

After her first confinement she had nursed for five months with both breasts, after which she had given up on account of weakness; and an abscess formed in each breast, and discharged for eleven months. After this, her second confinement, she at first nursed with both breasts; but the milk disappeared from the right one, and she continued with the left one only, for four months, and then discontinued, as it was thought that her milk disagreed with the child. Menstruation had not re-appeared; there was no reason to suspect pregnancy; and there was no uterine disease. Although she was anæmic, the milk was of good character, and the amount that flowed was twenty ounces in twenty-four hours. The author then enumerated the various remedies which he had used, without result, to arrest the secretion of milk. These included arsenic, iron, strychnine, iodide of potassium, belladonna, bromide of potassium, quinine in large doses, opium, compression of the nipple, galvanism, faradism, rest, and a dry diet. Menstruation appeared eleven months after the birth of the child, being preceded by a gradual diminution of the flow of milk, which continued over a second period, then ceased altogether, and the patient's condition became one of natural health. The author drew attention to the following facts: First, that the galactorrhœa was unilateral; second, that the milk was of normal quality and quantity; third, that there was no stimulus of nursing or of the genital organs; fourth, while resisting all treatment, it ceased spontaneously on the occurrence of menstruation. Authors were quoted as to the value of certain drugs in galactorrhœa, and cases were given illustrative of treatment by galvanism, and faradism. Reference was made to the experiments of Roehrig to determine whether the nervous or vascular element had the greater influence over the secretion of milk, and resulting in favor of blood pressure as the chief factor. Sinétý was quoted; and, in conclusion, the author remarked that he had failed to find any case similar to the one brought forward."

The author's last remark shows that he was not familiar with the report of my case in 1886, and his paper shows also that my treatment by bandage, which I believe to be infallible in such cases, was not known to him, and even at the late date

of his paper, this mode of treatment of galactorrhœa and mastitis was not known to the distinguished body before whom his paper was read, whose members took part in its discussion. That the treatment has not till recently attracted much attention in England is also evidenced from the following facts:

Prof. Chas. J. Wright, surgeon to the Hospital for Women and Children, at Leeds, lecturer on Midwifery at the Yorkshire College, England, in a paper on the treatment of mastitis, published in the *British Medical Journal*, July 23, 1887, says: "My object is to direct attention to the beneficial effects of pressure in the treatment of milk-engorgement and ordinary inflammatory diseases of the breast," and after referring to the old method of supporting with suspensory bandage or handkerchief, strapping with ordinary adhesive or sometimes lead or belladonna plasters, says he doubts whether we have hitherto realized the benefit derived by firm and equable pressure by a carefully adjusted bandage. * * * That the comfort which the bandage gives to the patient is immense, whether suppuration has taken place or not, and adds:

"Dr. G. E. Ranney, of Michigan, U. S., in a paper read before the Section of Obstetric Medicine, at the Brighton meeting of the British Medical Association, drew attention to the good results of the pressure treatment, and I bring it before this Society, as the method I advocate does not receive much, if any, notice in the English or American text-books.*

Prof. Robert Barnes, of London, in *British Medical Journal*, July 30, 1887, says: "Mr. Chas. I. Wright, in the *Journal* of July 23d, advocates the treatment of mastitis by pressure, referring to Dr. Ranney, of Michigan, as having drawn attention to the good results of the pressure treatment at the Brighton meeting of the Association last year. Mr. Wright further says that the method does not receive much, if any, notice in the English or American text-books.

"I hope he will allow me to point out that his researches

* I am informed that Dr. Dugas, of Georgia, in a paper published by him in 1876, advocated the use of the many-tailed bandage, in treatment of the breasts, but, never having seen the paper, I do not know the particular purposes for which he used it.—RANNEY.

have not been exhaustive. In the second volume of the *System of Obstetric Surgery and Medicine*, 1885, pp. 405 and 406, by myself and Fancourt Barnes, the principles and practice of treating mastitis by pressure are carefully described.' In reference to cases of this kind, it is there said: 'The principle of compression now finds its happiest application; it is best practiced by using strips of mercurial and belladonna plaster, about two inches wide, and long enough to seize the lower part of the breast, to pass over it, and to be made fast over the opposite shoulder. The plan has long been in use. Robert Barnes first learned its use and the method of applying it when attending Trousseau's *clinique*. Hardly anything in surgery has given us more satisfaction.' The method described in the work quoted is much more precise and useful than the bandage or roller used by Mr. Wright."

Mr. Wright, in the August 6th, 1887, number of the *Journal*, says: "In the *Journal* of July 30, Dr. Robert Barnes is good enough to refer to my remarks of the previous week upon the treatment of mastitis. He must allow me to point out that 'the method I advocate,' and which, I repeat, 'does not receive much, if any, notice' in those 'English and American text-books' which I have consulted, is carried out by means of 'a firm and equable pressure by a carefully adjusted bandage,' and thus it differs from the ordinary practice of 'compression,' * * * 'by using strips of plaster,' to which alone Dr. Barnes refers, and which is so often adopted—as he will find, I say—to the great comfort of the patient.

"My researches have long since made me familiar with Dr. Barnes' valuable work, upon which I draw freely for my lectures; and I find the very paragraph Dr. Barnes quotes marked for reference in my copy. He must, however, allow me to remind him that when he writes 'The principle of compression now finds its happiest application,' he is referring to treatment after pus has been evacuated by incision, the means of which he has just described in the paragraph which precedes the passage quoted.

"My contention is that the bandage pressure is not only precise and easy of application, but that it is useful at almost

any stage of breast engorgement and inflammation, and is more manageable than plaster strapping—

“1. Because it allows a close and daily examination to be made of the affected part.

“2. Because the bandage can be altered from time to time by the nurse, if necessary, in its tension or position, according to the requirements of the case.

“It is also useful in many cases where strapping could not be tolerated. Dr. Ranney’s paper was read at the Brighton Association meeting on the day when, unfortunately, Dr. Barnes was not present. It was discussed, I find by my notes as Secretary of the Obstetric Section, by Drs. Ellis, Bantock, Swayne and Ranney.”

* * * * *

“Since I ventured to bring the matter before our Leeds Medico-Chirurgical Society, further experience has convinced me that the bandage pressure is a useful addition to our appliances for the relief of affections, at all times troublesome and painful.”

I think that the treatment of mastitis by the bandage is of great practical value, because of the simplicity of its application and comfortable adjustment and because it is something that the average practitioner, or even an intelligent nurse, can adjust in cases with which the physician has frequently to deal, and which cases have been unsuccessfully dealt with heretofore by any method, as far as I know, except by the one used by myself first in 1885, and publicly recommended in 1886. I think that as far back as Velpeau’s time, strapping the breasts was recommended in the treatment of mastitis, but had that method been successful it would not have fallen into the disuse it did, nor would there have occurred so many cases of mastitis, going on to suppuration, even to the permanent impairment and sometimes absolute destruction of the mammary glands, if not the patients themselves. Adhesive straps to compress the glands are awkward of application, tiresome and exhausting to the patient, and, if short of encircling the body, will not produce the requisite pressure; and the encircling straps cannot, I believe, be so adjusted as to produce equable pressure, nor can they be made to follow the rapid diminution of the size of the

breasts which the frequent adjustment and systematic pressure of the many-tailed bandage will produce and which the adhesive straps will not. If it becomes necessary to frequently readjust straps, which certainly would be the case in largely tumefied breasts, how painful and tiresome it would be to the patient and troublesome and difficult it would be to the practitioner, and how awkward it would be for the mother to nurse her child? If anyone doubts these facts, let him try the straps. If anyone doubts the efficiency of the many-tailed bandage in such a case, I would like him to give it a fair trial. The perfect adaptation of the straps to the integument covering the glands admits of no movement, and they would necessarily contract and wrinkle to adapt themselves to the receding glands in case the engorgement continued to lessen; but the improved condition would not be maintained or advanced by the straps after the slight shrinkage immediately following their application. On the contrary the bandage (which can be easily and quickly adjusted and regulated) being more or less elastic, with but little to impede its movement on the body in the act of respiration and receding of the swollen glands, the sense of constriction first experienced by its firm adjustment soon gives way by the increased expansion of the lungs which the diminished size of the breasts permit. The fuller the respirations are, the greater will be the advance of the bandage upon the receding glands, which shrinkage will be commensurate with the free expansion of the lungs. As each pulsation of the heart normally sends blood to a part, in this case each respiration expanding the lungs and thereby producing pressure on the bandage, forces the blood from the swollen breasts, so that the act of respiration is made to act as a force to pump the blood from the engorged blood vessels of the breast.

Mastitis is undoubtedly often the result of septicæmia, but certainly not always so, and in fact I have never, I believe, had such a case in my own practice. Cases I, III, V and VI, above reported, could not, I am sure, have been caused by septicæmia. By the proper use of the bandage, promptly applied, I believe that in every case of mastitis suppuration can be prevented. At least, its use has never failed in my hands to anticipate and avoid that painful and much dreaded event.

